PREFACE

It is possible that this, the 23rd Symposium on Biology of Skin, was the only full meeting in the history of dermatology to be dedicated almost entirely to mammary glands. In fact, few dermatologists have even stopped to think that these are cutaneous glands. Textbooks of dermatology ignore them altogether.

Breasts have fulfilled many functions in the evolution of the human race. Phylogenetically, they have defined the class *Mammalia* (fr. L *mamma* breast); biologically, they are the largest and most important cutaneous glands; and esthetically, they are regarded by artists and laymen alike as the quintessence of femininity. Moreover, they are indispensable accessory reproductive organs. Yet, despite these roles and their sociocultural importance, because of the alarmingly high incidence of pathologic changes in them and the complex endocrinologic control, only oncologists, surgeons, and endocrinologists have studied them seriously. Males and females have nearly identical mammary organs and, even as adults, the differences are mostly quantitative. Under the proper endocrinologic stimulus, the mammary glands of males can be made nearly functional.

How these glands function depends on the interpaly of many complex neurologic and endocrinologic factors, some of which control the development of the glands in females. Other factors are involved in bringing the glands to a functional state, others still in initiating milk secretion, and yet others in maintaining lactation. The importance of milk in human society has spurred great interest in the study of mammary glands in other animals. Hence, much of what we know about the physiology, biochemistry, and genetics of mammary gland development and activity comes from studies of certain domestic animals.

Currently, clinical interest in breasts is based upon a variety of important considerations. (1) In an age when breast feeding is increasingly regarded as a tiresome and socially degrading activity, its merits must be reappraised. A recent discovery, namely, that IgA, an important component of the maternal immunologic endowment, is transmitted by way of milk and not transplacentally, is helping to combat this attitude. (2) The fact that of all the components of the cutaneous system, the mammary tissue of women and other female animals displays the highest susceptibility to malignant transformation is well known but not well understood. (3) In both sexes, there are common but inexplicable anomalies of mammary gland development; a striking example, testicular feminization, gives some clues to the processes that govern normal sex differentiation. (4) Finally, because of the psychosexual role of breasts in our society, their morphologic imperfections, whether slight or serious, have resulted in the development and application of surgical and other procedures for cosmetic improvement which have now become commonplace.

The choice of mammary glands as the topic for the 23rd Symposium was prompted by our conviction that a meeting of representatives of the various disciplines concerned with both the biologic and the medical aspects of these organs—surgeons, oncologists, epidemiologists, immunologists, pediatricians, and dermatologists—would produce a fruitful and timely discussion. Apocrine glands were also included since they have been neglected by virtually all but the vendors of deodorants and those who object to the natural scents of their fellow human beings.

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